

example, employee name, also printed on each item. Note that the printed product resulting from the application of the indicia all contain the company name. The printed product is thus “personalized” with those indicia. However, each printed product also has each employees’ name resulting in a printed product is uniquely individualized. This invention produces a printed product of say, ten coffee mugs, each having the company name, but each distinctly different since each mug has a separate employee name. The resulting printing process consists of one order for ten coffee mugs, not ten separate orders.

This invention extends the printing of individualized indicia to an addition level by incorporating “conditional variables” into the database. These conditional variables are used to add other features to the printed indicia. For example, the individualization database 111 could contain a variable “employee title”. Any employee who has “programmer” in their title has their name printed in red while any employee who has “vice president” in their title has their name printed in blue. The logic for the implementation of a conditional variable is shown later in FIG 4A. The logic applies to either the personalization database or the individualization database and furthermore, a conditional variable in one database can be used to effect or modify selected indicia in the other database.

When the customer selects a specific template, the server system 103 sends a new form to the client system 101 that displays the fields for personalization data entry (company data), individualization data entry (employee data), and color-title options dictated by the conditional variable linked to employee title.

In order to enter the data on the form, the displayed web page 105 might show both sides of the coffee mug where one side is the company side and the other is the employee side. It should be obvious that any data the customer enters on the company side stays constant while any data the customer enters on the employee varies with each mug to be printed. Thus, the displayed web page or form might have buttons labeled “Next Employee” and “Previous Employee”. Each time the customer presses one of these two buttons, the client system 101 sends the server system 103 the content of the form along with the status of the button pressed. The server system 103 saves the data in the individualization database 111. If the customer had entered or changed the company data, the server system 103 would have stored the data in the personalization database 110. The server system 103 also responds, based on which button was

pressed, with a form reflecting the data appropriate for that button. A different embodiment of this form would not require the two buttons used to select next or previous employee. Instead, the form could have a large data entry box where the user could type employee names while remaining on the same form. In the first case, the form and data is sent over the communications link 113 each time a button is pressed. In the second case, the form and data is sent only once when the user has entered all the employee names. Such form design variations might be based on the bandwidth of the communications link 113 or the user interface features of data entry forms and are well known to those skilled in the art.

Another button on the form displayed on the client system 101 could be used to indicate that the customer has completed the data entry for all the employees. When the server system receives this request, one possible response is to send the client system 101 a summary of the order. This includes, at a minimum, a count of the number of individualized items to be printed and, if required, the cost for the printing. Or for example, the logic in a properly designed server system 103, might examine all of the data supplied by the customer to determine if any of the data is too wide to be printed. For example, the server system 103 responds to the client system 101 with a form showing that the text of a specific individualization datum will not fit within the allowed print area. The logic for this might be part of the template database 109 which contains print area limits which are tested prior to completing the order.

Prior to initiating the printing process, the customer may wish to review the appearance and content of each individualized item. The client system 101 makes a request to the server system 103 to read the item selected from the template database 109 and to merge the two-part data from the personalization database 110 and the individualization database 111 for the first individualized item. The merged data is formatted for display on the client system 101 along with buttons, which permit the customer to step through each item for review. The customer may, at any time, elect to edit or change any feature. This includes but is not limited to the choice of the inventory item from the inventory database 108 and the template item from the template database 109. When the customer elects to make such changes, the client system 101 sends the request to the server system 103 where the appropriate databases are updated to record the changes. To those skilled in the art, this process of updating a database is well known.

When the customer is satisfied with each individualized item, the customer can elect to print a "sample" copy on the optional printer 102 connected to the client system. If the customer has a suitable printing device and an inventory of stock or objects to be printed, the uniquely individualized product may be printed on the optional printer 102

When the customer elects to complete the order, the customer would utilize the inventory of stock or objects collocated with the server system 103. The customer could make a request to the server system to print either a sample of a personalized item that could be delivered for approval or, if desired, the complete set of individualized items comprising the order on the server system printer 111. Depending on the state of the printer 111 or the individualized item stock in inventory, the printing process could begin immediately or could be postponed to a later time or date as necessary. The server system 103 would send a response to the client system 101 to indicate when the individualization printing process will be initiated or completed. And, as an additional feature or typical ecommerce transactions, the server system 103 would inform the client system 101 with a printing date or product delivery date and printing costs and any optional shipping costs.

To further illustrate or extend the functionality of such a system, if the customer was a regular customer of the coffee mug imprinting company, the printing might only print coffee mugs for new employees and then might send an invoice to the customer. On the other hand, if the system were used by consumers at random for one-time orders, the system might present a credit card form to the consumer prior to printing. Normal ecommerce methods would use any number of credit card transaction approval systems to clear the order prior to printing. Business to customer ordering methods based on either on time or repeating customers are commonplace.

The customer interacts with the template and those forms that are the web pages 105 necessary to solicit the variables required by the template sent by the server system 103 to the client system 101. This invention also permits the customer to create his own template on the client system 101 but under control of the server system 103. This might be a general template with items that can be dragged with a mouse or moved by selection with keyboard arrows. These options are all at the disposal of web page designers and are well known to those skilled in the art.